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TEXAS
ADVANCED ENERGY
BUSINESS ALLIANCE

PROJECT NO. 51840

RULEMAKING TO ESTABLISH ELECTRIC WEATHERIZATION STANDARDS	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

COMMENTS OF TEXAS ADVANCED ENERGY BUSINESS ALLIANCE

I. INTRODUCTION AND EXECUTIVE SUMMARY

Texas Advanced Energy Business Alliance (TAEBA) appreciates the opportunity to submit comments in response to the Public Utility Commission of Texas' (Commission) *Proposal for Publication for New 16 TAC § 25.55 as Approved at the August 26, 2021 Work Session* (Proposal).

In accordance with the Commission's request in its Proposal, TAEBA provides the following executive summary of its comments.

- **More clarity is needed in proposed new 16 Texas Administrative Code (TAC) §§ 25.55(c), (d), and (e) (pertaining to reliability standards for, inspections of, and weather-related failures by generation entities) to ensure that generation entities can adequately and reasonably comply with the proposed standards.**
- **Artificial intelligence and risk management software can support the Commission and ERCOT's ability to anticipate transmission service disruptions while prioritizing inspections required by the PURA § 38.075 and the proposed rule.**
- **The proposed standards do not address fundamental fossil fuel supply risks that contribute to generator reliability issues.**
- **The Commission should leverage its authority in PURA § 38.075 not only to encourage implementation of weather emergency preparation measures and inspections but also to implement policies and programs that support robust distributed energy resource (DER) development to mitigate the impact and severity of service disruptions.**

TAEBA is a state business association composed of local and national energy companies seeking to make Texas' energy system more secure, clean, reliable, and affordable. Our members provide products and services across the advanced energy spectrum, including large-scale renewables and storage, distributed generation and storage, demand response, energy efficiency, electric vehicle charging equipment and software, and grid management services. In the wake of events that transpired last winter, Texas has a significant opportunity to refocus its policies, practices, and procedures to encourage the use of advanced energy resources in a manner that enhances system flexibility and reliability while maintaining affordability.

TAEBA appreciates the opportunity to provide these comments on the Proposal and looks forwarding to working with the Commission, Commission Staff, and other stakeholders as the Commission continues to develop policies to strengthen the reliability of the electric grid while optimizing flexibility and affordability for all market participants and Texas electricity customers.

II. COMMENTS

a. More clarity is needed in proposed new 16 Texas Administrative Code (TAC) §§ 25.55(c), (d), and (e) (pertaining to reliability standards for, inspections of, and weather-related failures by generation entities) to ensure that generation entities can adequately and reasonably comply with the proposed standards.

TAEBA generally does not oppose the Commission's proposed standards but seeks further clarification to ensure that generators can reasonably achieve compliance with the proposed regulations. TAEBA has identified four specific areas where additional clarification is needed.

First, proposed section 25.55(c)(1)(B) would require generation entities to install "adequate wind breaks for resources susceptible to outages or derates caused by wind."[1] Wind turbines naturally rely on windy conditions to perform, but they also have wind speed-based operational limits to ensure the safety and integrity of operating equipment. Every wind turbine has an anemometer that measures wind speed. When the anemometer records wind speeds higher than a pre-set level, which may vary by manufacturer

[1] Proposal at 8.

and design, automatic controls may shut off the wind turbine or cause the blades to feather (i.e., changing the pitch angle of the blades) to reduce the speed at which the turbine spins. The Commission's proposed standard as proposed could be interpreted to mean that wind turbine operators would be required to install wind breaks to the extent excessive wind speeds trigger safety-driven equipment shutoffs. TAEBA anticipates that this is not likely the Commission's intent and recommends that the language be clarified to ensure that the rule does not create the perverse outcome of inhibiting wind production and reducing available resources on the system during peak periods.

Second, proposed new section 25.55(c)(1)(C) would require a generation entity to complete "*[a]ll actions necessary* to prevent a reoccurrence of any cold weather critical component failure that occurred in the period between November 30, 2020, and March 1, 2021." This standard is overly broad and could be interpreted to require the implementation of measures that are unsafe, cost prohibitive, or simply not possible given current technology. Similar to the solution described above, the Commission should clarify that the proposed rules should not be interpreted to require a generation entity to implement a weather emergency preparation measure that is inconsistent with good utility practice or is contrary to the design or operating limitations of a generation facility or component.

Third, proposed new section 25.55(d) requires the Electric Reliability Council of Texas (ERCOT) to perform inspections of generation resources and prioritize these inspections based on "risk level" and other related factors.[2] This requirement appears to be based on a provision in PURA § 35.0021(c-1) that requires ERCOT to prioritize inspections "based on risk level, as determined by [ERCOT]." Other than listing factors upon which ERCOT may prioritize its inspections, the proposed rule does not define the term "risk level." TAEBA recommends that the Commission clarify how generators will be assessed based on risk level and that ERCOT define how it will determine various risk levels before conducting any inspections under the new rule. We also seek further information on whether ERCOT's pre-inspection risk level assessment of generators will be publicly available and how often ERCOT is required to update its assessment to reflect measures taken by generators to enhance reliability.

Finally, the Commission's Proposal states in new section 25.55(e) that "ERCOT must adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the

[2] *Id.* at 11-12.

assessment."[3] First, it is unclear whether "this requirement" refers to section 25.55(e) in its entirety or a specific directive within section 25.55(e); TAEBA recommends the Commission clarify this language and provide more information concerning the scope of the rules that ERCOT must adopt. Second, it is unclear when or how ERCOT is expected to adopt rules regarding engineering assessments and whether those rules will be open to stakeholder feedback. Finally, it is unclear under what conditions generation facilities would be subject to additional inspections by ERCOT. TAEBA suggests clarifying these key issues prior to adoption of final weatherization standards for generators.

b. Artificial intelligence and risk management software can support the Commission and ERCOT's ability to anticipate transmission service disruptions while prioritizing inspections required by the PURA § 38.075 and the proposed rule.

As the Commission and ERCOT contemplate the task of overseeing transmission facility inspections stipulated by proposed section 25.55(g), ERCOT must consider how to efficiently prioritize the assessment of thousands of miles of transmission lines. To facilitate compliance with North American Electric Reliability Council (NERC) reliability standards for transmission systems and support the implementation of the Commission's transmission weatherization standards, TAEBA submits that artificial intelligence and risk management software can help the Commission anticipate which areas of the grid may be susceptible to potential outages and which areas, therefore, may need to be prioritized for inspection. Using tools that incorporate data from both natural (e.g., weather) and built (e.g., planned infrastructure maintenance) environments as well as predictive modeling capabilities can provide a more complete assessment of potential vulnerabilities in critical transmission infrastructure. We encourage the Commission to consider how existing or new utility and ERCOT software can be formally integrated into ERCOT's approach to inspections to avoid potentially costly disruptions to electricity service.

[3] *Id.* at 12.

c. The proposed standards do not address fundamental fossil fuel supply risks that contribute to generator reliability issues.

One of the critical drivers behind the severity of the grid outages experienced in February 2021 was the significant disruption to the production and availability of natural gas as a fuel source for Texas power generators. According to data from the U.S. Energy Information Administration, natural gas production in the state dropped by nearly half during Winter Storm Uri – primarily due to frozen natural gas infrastructure curtailing the flow of natural gas at the outset of the event.[4] Moreover, because the withdrawal rate of natural gas from storage facilities in February 2021 was nearly triple the rate from February 2020, there was a dearth of available natural gas for electricity generation and other end uses. A report on the 2021 winter weather event by The University of Texas at Austin Energy Institute (EI Report) estimates that 6,700 MW of generation capacity failed to come online due to "fuel limitations" – a significant portion of which stemmed from natural gas and coal supply constraints.[5] Moreover, even if natural gas generators that experienced forced outages due to weather-related plant issues during the event had been operable, it is not clear they would have had adequate fuel supply to run. The EI Report confirms that even natural gas generators with ostensibly "firm" fuel supply contracts experienced fuel availability related outages and derates, including five black-start-rated units.[6]

These findings lay bare the complex, interdependent nature of Texas' energy systems and reinforce the observation that fossil fuel generators' ability to support resource adequacy is contingent on a number of factors beyond the operational status of plants themselves. The EI Report acknowledges that "[d]espite the interdependence of the state's natural gas and electricity industries, different state agencies have oversight over the two industries." In other words, The EI Report considered it significant that while the Commission exercises jurisdiction over certain aspects of electricity generation, including natural gas units, the Texas Railroad Commission (TRC) ultimately regulates the production and distribution of natural gas upon which natural gas generation depends. In the near-term, it is critical that the Commission work closely with the TRC to ensure that appropriate standards and regulations are in place to shore up fuel supplies during winter peak events and that the costs for complying with those

[4] King et al., *The Timeline and Events of the February 2021 Texas Electric Grid Blackouts* at 41, 44, published July 2021.
[5] *Id.* at 9, 31, 45.
[6] *Id.* at 31-32.

regulations are borne by the appropriate entities. At the same time, the Commission also can begin to enhance system reliability and reduce fuel supply risk by developing policies and programs that fully value reliability benefits that renewables, energy storage, demand response, microgrids, and other DERs can provide to the grid and customers.

The proposed rule, however, falls short in addressing fuel supply risks that contribute to generator reliability issues. Other than including "fuel security" within a list of weather emergency preparation measures (Section 25.55(b)(7)) and requiring a generator to maintain freeze protection components for "all equipment, including fuel delivery systems" (Section 25.55(c)(1)(B)), the proposed rule does not establish any fuel-related standards or require any specific measures to reduce fuel supply risk. TAEBA encourages the Commission to consider and adopt these types of prudent and preventative measures to address one of the fundamental drivers of the February 2021 power outages.

d. The Commission should leverage its authority in PURA § 38.075 not only to encourage implementation of weather emergency preparation measures and inspections but also to implement policies and programs that support robust distributed energy resource (DER) development to mitigate the impact and severity of service disruptions.

PURA § Section 38.075 of the Public Utility Regulatory Act (PURA) directs the Commission to "require each electric cooperative, municipally owned utility, and transmission and distribution utility providing transmission service in the ERCOT power region to implement measures to prepare the cooperative's or utility's facilities to maintain service quality and reliability during a weather emergency according to standards adopted by the commission."[7] TAEBA asserts that Section 38.075 of PURA confers upon the Commission broad authority to look beyond the physical status of utilities' transmission and distribution assets and actively require utilities to "implement measures" that shore up system reliability. This provision requires utilities to do more than simply weatherize their facilities and accommodate inspections by ERCOT. Instead, PURA § 38.075 requires utilities to take measures – including through an array of DER and demand-side resources – that can play a significant role in

[7] PURA at 137, available at: https://www.puc.texas.gov/agency/rulesnlaws/statutes/Pura21.pdf

enhancing grid flexibility, reliability, affordability, and equity. These measures could include, but are not limited to:

- Expansion of utilities' energy efficiency programs, such as cold-weather heat pump programs, with a focus on measures expected to reduce demand during winter peaks – particularly for customers in low-income or disadvantaged communities;
- Expanded programs and market access for distributed renewable generation and battery storage, including aggregations, whether in front of or behind the customer meter;
- New or expanded demand response programs designed to incorporate winter system peaks in addition to addressing summer peak demand, to be delivered by competitive retail electric providers and third-party aggregators to respond to ERCOT market signals and/or distribution utility price signals;
- New or expanded programs and necessary rule modifications to enable expansion of microgrids to serve critical customers and support community resilience;
- New or expanded electric vehicle (EV) managed charging programs for residential and commercial customers that leverage smart charging functionality in EV chargers and EVs themselves;
- Introduction or expansion of time-varying transmission and distribution rates that reflect grid conditions and encourage all customers to shift loads to off-peak periods, including time of use rates and critical peak pricing; and
- Introduction and modification of performance-based ratemaking and performance incentive mechanisms (PIMs) that align utility behavior with the achievement of summer *and* winter peak demand reductions via increased deployment of the technologies listed above. If properly designed, these mechanisms could minimize system costs and enhance reliability by encouraging utilities to further consider leveraging the capacity services that DERs can provide. A dozen states outside of Texas including Missouri, Michigan, and Ohio have PIMs designed to achieve these objectives.[8]

[8] Gold et al., *Performance Incentive Mechanisms for Strategic Demand Reduction* at 9, February 2020.

TAEBA recommends that the Commission modify existing rules to ensure that DERs can deliver and be compensated for the range of grid services they can provide. In short, a near-term focus on augmenting demand-side resources' ability to meet reliability needs is squarely consistent with PURA § 38.075 and would complement the Commission's efforts to enhance both supply-side reliability and reliability of the transmission and distribution utility infrastructure relied upon to deliver power to Texans under all weather conditions. TAEBA strongly recommends that the Commission exercise its authority conferred in PURA to initiate and implement a range of policies and regulations that recognize DERs' ability to contribute to resource adequacy in a manner that mitigates catastrophic grid disruptions, shields customers and utilities from extreme financial risk, increases resource diversity, and enhances system flexibility. We also strongly encourage the Commission to incorporate these policy proposals into the forthcoming set of reliability standards and other related proceedings as necessary.

III. CONCLUSION

TAEBA appreciates the opportunity to provide comments on the Commission's proposed reliability standards and looks forward to continued engagement in this proceeding.

Respectfully submitted,

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